

Serial No.: 10/634,687

Attorney Docket No.: SO0017 US NA

REMARKS**Amendments to Claims**

Claims 1, 2, 3 and 4 are being amended to replace "absorbent" with "activated carbon". Claim 8 is being canceled as redundant. Claims 9 and 10 are being amended to depend from claim 1 rather than claim 8.

Claim 19 is being amended to recite that the color is reduced by at least 25%. Claim 20 is being amended to recite that the color is reduced by at least 40%. This amendment introduces no new matter and is supported in the specification as filed, *inter alia*, in the Examples. Claim 21 is being canceled.

Claim 22 is being amended to replace "absorbent" with "carbon black". Claim 23 is being amended to delete subject matter that is now recited in claim 22.

Claims 32-34 are being canceled.

Allowable Subject Matter

The Examiner previously stated that claim 12 would be allowable if rewritten in independent form including all limitations of the base claim and any intervening claims. In Applicant's previous response, Applicant amended Claim 1 to include the recitation, from claim 12, that the claimed process is carried out at a temperature from about 25 °C to about 100 °C. The Examiner stated that the reason for the allowability of certain subject matter is that Sunkara et al., U.S. 2002/0010374 A1 ("Sunkara"), discloses a process that is "required to be conducted at temperatures greater than 150 °C, whereas claim 12 limits the temperature to about 25 ° to about 150 °C". (Office Action dated October 20, 2004, page 5). Thus, Applicant respectfully submits that, in view of the Examiner's own statements, claim 1 as rewritten to incorporate the limitations of original claim 12 should be allowed. Nevertheless, to advance prosecution of the present application, Applicants are now amending claim 1 to also include the subject matter of Intervening claims 8 and 9. Although claim 12 depends from claim 12, Applicant submits that since the temperature range recited in claim 12 is narrower than that of claim 11, incorporation into claim 12 of the subject matter of claim 11 would not be appropriate.

Serial No.: 10/634,687

Attorney Docket No.: SO0017 US NA

Rejections under 35 U.S.C. § 112

Claims 1-8, 15-25 and 32-34 were rejected under 35 U.S.C. § 112, first paragraph. The Examiner stated that the specification, while being enabling for obtaining PO3G having a molecular weight of about 250-2250 with an APHA color less than about 50 by contacting PO3G with about 1.0 to 5.0 wt. % activated carbon, does not reasonably provide enablement for obtaining PO3G having a molecular weight of about 2251-5000 with an APHA color less than about 50 by contacting PO3G with about 0.1 to 5.0 wt. % activated carbon. Applicant respectfully disagrees, because, Applicant submits, the molecular weight of the PO3G is not critical to operability of the process. The resulting color of the PO3G is determined in part by the initial color and the amount of adsorbent.

For example, Applicant respectfully directs the Examiner's attention to Table 5 (tabulating the data from Examples 19-24) on page 14 of the specification, which shows that all of the powdered activated carbons reduced the color of the PO3G from 92 to 61 or lower. Applicant submits that the specification, including the Examples, adequately teaches one skilled in the art how to carry out the invention. The Examples illustrate the degree of color reduction obtained with varying quantities of absorbent, and show that lower APHA color values can generally be obtained when the process is carried out on PO3G having relatively lower initial APHA color values. Applicants further submit that the Examples illustrate that, when 0.15 % or more of activated carbon was used, the APHA color value was decreased by at least 23.8% and that (in Example 14), when 1.0 % of activated carbon was used, the reduction in APHA color was 40%.

Moreover, Applicant respectfully submits that the Examiner has already effectively indicated that claim 1, as rewritten to incorporate the subject matter of claims 1, 9 and 12, would be allowable. Claims 9 and 12 do not recite a molecular weight or a molecular weight range, and claims 1, 5 and 6 recite molecular weight ranges of 250-5000, 500-4000, and 1000-3000 respectively. Applicant respectfully submits that the Examiner's position regarding the allowability of claim 12 is unclear. In particular, Applicant refers to the Examiner's indication that the incorporation into claim 12 of the subject matter of claims 1, 8 and 9 would render the claim allowable, on the one hand, and the statement of the reasons for allowability of claim 12. Applicant respectfully requests clarification of this issue, preferably by a telephone conversation between the Examiner and Applicant's representative.

Serial No.: 10/634,687

Attorney Docket No.: SO0017 US NA

Rejections Under 35 U.S.C. §102

Claims 1-7, 15-28, 30 and 32 were rejected under 35 U.S.C. § 102 (b) as being anticipated by Sunkara et al., U.S. 2002/0010374 A1 ("Sunkara"). This rejection is respectfully traversed.

The Examiner asserts that because Sunkara teaches a process for preparing polytrimethylene ether glycol polymer, which process can include the use of a heterogeneous catalysts such as silica, alumina or acid-treated clays, the present claims, which are directed to a process that includes contacting a PO3G polymer with an adsorbent, which adsorbent can be a silica, alumina or clay, are anticipated by Sunkara. Applicants respectfully disagree, since the present claims recite contacting of the polymer with an adsorbent after the polymer has been prepared. The Examiner's attention is respectfully directed to page 7, lines 18-20, which states that the polymer in liquid form is contacted with the adsorbent. Applicant further submits that Sunkara does not disclose, teach, or suggest a PO3G having an APHA color of less than about 50, as recited in present claim 24.

Moreover, claims 1 and 22, as presently amended, recite that the contacting is carried out at a temperature from about 25 to about 100 °C, and, as the Examiner has stated, Sunkara does not disclose a process carried out within the recited temperature range. Accordingly, Applicants respectfully submit that claims 1 and 22, and all claims dependent therefrom, are novel in view of Sunkara.

Rejections Under 35 U.S.C. § 103(a)

Claims 1, 8-11, 13, 14, 29, 31, 33 and 34 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sunkara in view of Malloy et al., U.S. Patent No. 4,243,831 ("Malloy"). Specifically, the Examiner asserts that one having ordinary skill in the art at the time the invention was made would have found it obvious to utilize an activated carbon, as taught by Malloy, in the place of silica or alumina since, the Examiner asserts, activated carbon, silica and alumina are taught by Malloy to be equivalent adsorbents for removing color bodies. Applicants respectfully disagree with the Examiner's position. Applicants respectfully submit that the listing by Malloy of certain adsorbents for use in olefins does not constitute a statement that the listed adsorbents would be functionally equivalent to each other when used in an entirely different class of polymers such as PO3G. There is no

Serial No.: 10/634,687

Attorney Docket No.: SO0017 US NA

teaching or suggestion anywhere in Malloy of the use of adsorbents, including silica, alumina, and activated carbon, in any material other than olefins. Applicants submit that a person of ordinary skill in the art would not expect to achieve the same results in treating PO3G that were obtained in olefins. Moreover, there is no motivation for a person of ordinary skill in the art to look to Malloy, which is directed solely to olefins, for guidance on removing color bodies from PO3G. Accordingly, Applicants respectfully submit that the present claims are not obvious over Sunkara in view of Malloy.


Applicant further submits that the present amendments to the claims, to incorporate subject matter that the Examiner has apparently deemed allowable, renders the rejections under 35 U.S.C. § 103 over Sunkara in view of Malloy moot.

CONCLUSION

Applicant respectfully submits that all of claims 1-7, 9, 10, 13-20 and 22-31 are presently allowable over the cited references and compliant with the requirements of 35 U.S.C. § 112. Accordingly, withdrawal of the rejections and prompt issuance of a Notice of Allowance are earnestly solicited. Should there be any issues remaining unresolved after the present Amendment, the Examiner is respectfully requested to telephone the undersigned, Applicant's representative.

The Commissioner is authorized to charge any fees due, or credit any overpayment, to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

Respectfully submitted,



Gail Ann Dalickas
Attorney For Applicants
Reg. No. 40,979
Telephone: (302) 992-4947
Facsimile: (302) 992-5374

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